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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------|------------------|
| 10/695,751 | 10/30/2003 | Shyi-Kaan Wu | 3624-0133P | 6175 |
| 2292 | 7590 | 03/01/2006 | EXAMINER | |
| BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747 | | | BRYANT, DAVID P | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 3726 | |
| DATE MAILED: 03/01/2006 | | | | |

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/695,751

Applicant(s)

WU ET AL.

Examiner

David P. Bryant

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Specification

The disclosure is objected to because of the following informalities:

The specification includes numerous grammatical and spelling errors throughout, which is most likely the result of a literal translation from a foreign document. It is suggested that the specification be carefully proofread to determine the location of such errors, and that amendments be made accordingly.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1:

The preamble is inconsistent with the body of the claim, rendering the claim indefinite. While the preamble appears to recite a method ("Using infrared rays for quick joining a golf club head, comprising:"), the body of the claim recites only an apparatus (i.e. "a heating source of infrared rays adapted to...."). It is thus unclear whether applicant is attempting to recite a method or an apparatus. Since there are no explicit method steps recited, the claim has been interpreted

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as an apparatus claim for examination purposes. If it was applicant's intent to instead claim the method, the following amendments to the claim are suggested:

1. (Currently Amended) A method [Using infrared rays] for quick joining [a] golf club head members using infrared rays, the method comprising:

disposing a metallic filler between a golf club head and a golf club head component;
using a heating source of infrared rays [adapted] to melt the metallic filler disposed between the golf club head members within a predetermined processing temperature and time, thereby joining the golf club head members [to constitute the golf club head].

Should applicant choose to amend the claim as suggested, the dependent claims would then need to be reviewed and amended to correspond to the independent claim.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-11 are rejected under 35 U.S.C. 102(b) as being anticipated by Sikka et al. (U.S. Patent No. 6,174,388).

Claim 1: Sikka et al. teach a heating source (1 in Figure 1; 100 in Figure 2) of infrared rays capable of melting metallic filler disposed between golf club members. See column 2, lines 4-16, where it is disclosed that the infrared heaters can be used in any number of ways to induce "a physical, chemical, or phase change" (e.g. melting) in any material.

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Claims 2, 3, and 7-11: These claims recite the intended use of the heating source of infrared rays (i.e. for use with particular golf club components/materials, or in vacuum or protective gas environments). However, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. In this case, the IR heating source of Sikka et al. is capable of performing the intended use(s), and thus meets the claims.

Claims 4 and 5: As disclosed in column 5, lines 52-53, the IR heating source of Sikka et al. is capable of heating rates up to 200°C/second.

Claim 6: Applicant has recited a wavelength range of the infrared waves as being between 0.76 and 1,000 μm . However, this covers the *entire* range of infrared rays in the electromagnetic spectrum. Since the heating source of Sikka et al. is an IR heating source, it is inherent that the wavelength of IR rays generated thereby will fall within the claimed range. Note also that Sikka et al. disclose in column 6, lines 31-34, that it is possible to tune the IR radiation to any particular IR wavelength based upon the results desired for the material being heated.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Sakuyama et al. teach an IR heater wherein the wavelength of rays emitted therefrom is between about 1 and 8 μm .

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Letters, Jr. teaches a method of joining golf club head members using a metallic filler between a shaft and the golf club head that is subsequently melted to join the members together. It is noted that Letters, Jr. discloses using a radio-frequency heater to melt the metallic filler, but further states that any high frequency heater may be employed.

Karner et al. disclose a method of joining golf club head members using a curable epoxy adhesive between a shaft and the golf club head. To activate the adhesive once the shaft and the golf club head are aligned, Karner et al. disclose the use of an infrared heater.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David P. Bryant whose telephone number is 571-272-4526. The examiner can normally be reached on Monday-Thursday (6:30-5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, George Nguyen can be reached on 571-272-4491. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



David P. Bryant
Primary Examiner
Art Unit 3726